

REMARKS

In the Office Action, the Examiner rejected claims 1-9 and 13-24. In view of the following remarks, the Applicants respectfully request reconsideration and allowance of all pending claims.

Objection to the Drawings

As noted above, Applicants resubmit all drawings, each labeled with "Replacement Sheet" as requested by the Examiner.

Rejections Under 35 U.S.C. § 103

In the Office Action, claims 13 and 16-21 were rejected under 35 U.S.C. § 103(a) as being obvious based on U.S. Patent No. 2,457,843 to Strickland, Jr. ("the Strickland reference") in view of Miller, U.S. Patent No. 3,022,368 and in view of Moesta, U.S. Patent No. 1,548,204. Claims 1-5, 9, 14 and 22-24 were rejected under 35 U.S.C. § 103(a) as being obvious based on Strickland, Jr. in view of Miller and Moesta, as applied to claims 13 and 16-21 above, and further in view of Haldeman, U.S. Patent No. 5,461,215. The Examiner rejected claims 6, 7, 8 and 15 in further view of other secondary references.

Legal Precedent

First, the burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir.

1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). The Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). Moreover, a statement that the proposed modification would have been “well within the ordinary skill of the art” based on individual knowledge of the claimed elements cannot be relied upon to establish a *prima facie* case of obviousness without some *objective reason to combine* the teachings of the references. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993); *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d. 1313, 1318 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d. 1161 (Fed. Cir. 1999).

Second, when prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Third, it is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 U.S.P.Q. 769, 779 (Fed. Cir. 1983); M.P.E.P. § 2145. Moreover, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being

modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959); see M.P.E.P. § 2143.01.

Fourth, in order to rely on equivalence as a rationale supporting an obviousness rejection, the equivalency must be recognized in the prior art, and cannot be based on applicant's disclosure or the mere fact that the components at issue are functional or mechanical equivalents. *In re Ruff*, 256 F.2d 590, 118 U.S.P.Q. 340 (CCPA 1958); *see also* M.P.E.P. § 2144.06.

There is no motivation to combine Strickland with Miller and/or Strickland with Moesta

Applicants respectfully submit that the rejection under Section 103 is improper because the Examiner has not provided requisite motivation or suggestion to combine the prior art references which are used to reject the claims. For example, independent claims 7, 13, and 21 recite a cable, a tube or a conductor "configured to be *wrapped around* a workpiece *to inductively heat the workpiece* during operation." (Emphasis added). Although Strickland does disclose a coil configured to be wrapped around a work piece for inductive heating purposes, the teachings of Miller and Moesta are not directed toward such purposes and elements disclosed therein would not motivate one skilled in the art to combine these references to arrive at the claimed invention. More specifically, neither Miller nor Moesta disclose a cable configured to be wrapped around a workpiece for inductive heating. In fact, Miller discloses an inductive heater coupled to a cable while Moesta teaches a portable electric machine.

Moreover, the cables disclosed by Miller and Moesta are intended solely for delivering power to a heating device and/or to a welding machine. Further, independent claims 13 and 21 recite the cable is "configured to receive *power to inductively heat* the workpiece through the flexible tube." (Emphasis added). In contrast, Miller and Moesta

merely teach a cable providing means for delivering power, and no disclosure in these references suggests that the power delivered by the cables is appropriate or even capable of being used for inductive heating applications. Thus, there is no suggestion or motivation why one skilled in the art would combine the cables and/or components thereof taught by Miller and Moesta with the coil disclosed by Strickland.

Further, the Examiner combined an electrical connector 50 taught by Miller with the coil taught by Strickland. *See* Office Action, page 3. However, such an electrical connector may only be suitable for purposes of delivering power to an inductive heater, but may not be suitable for delivering power to a cable which itself is used to for inductive heating. Thus, there is no suggestion or motivation why one having ordinary skill in the art would combine an electrical connector, such as the one taught by Miller, with the coil disclosed by Strickland, as their functionality may be incompatible.

Thus, the claimed cable comprises two fluid connectors both of which are coupled to the cable. In the rejection, the Examiner combined fluid connector 53 of Miller and fluid T-connectors 14 of Moesta with that of Strickland. *See* Office Action, pages 3-4. Applicants submit that the fluid connectors disclosed by Miller and Moesta are adapted to connect a cable to a mount or a support. In Miller, the connector 53 connects the cable 35 to mount 13. *See* Miller, Fig. 1. In Moesta, the T-connector 14 connects the cable hose 15 to bench 1 via coupling member 9. *See* Moesta, Fig. 1. Thus, the connectors disclosed by the prior art references are not adapted to be fluidically coupled to the hollow interior of the fluid-cooled induction heating cable, as recited by the claim. Therefore, one of ordinary skilled in the art would not be motivated to combine the fluid connectors taught by Miller and Moesta with the coil disclosed by Strickland to obtain *a first and a second fluid connector*, each fluid connector being separate from each electrical connector and *fluidically coupled to the hollow interior of the fluid-cooled induction heating cable*, as recited by the claim. Given the lack of any motivation or suggestion to combine the cited references, the Examiner's rejection is improper and cannot stand.

In view of these deficiencies, the cited references, taken alone or in combination, cannot support a *prima facie* obviousness rejection of independent claims 1, 7, 9, 13, and 21.

Neither Strickland and Haldeman nor Miller and Haldeman can be combined as applied to claims 1 and 9

Haldeman discloses a litz cable 10 which is a cable-like conductor for carrying current. *See* Haldeman, Fig. 5. In contrast, Strickland discloses a first conductor 20 and a second conductor 21 both carrying current in what appears to resemble a coaxial configuration. Miller, too, discloses a coaxial cable 35 comprising respective first and second concentric tubular wires 44 and 45 with a flexible concentric tube 40 disposed between them for fluid passage. Miller, col. 2, lines 48-63. Accordingly, Haldeman requires one conductor, while Strickland and Miller require two conductors in a coaxial configuration for carrying current and a cooling medium between them. Hence, the two configurations disclosed by Haldeman and Strickland and/or Miller are functionally and structurally different and incompatible. More critically, there is no apparent teaching in the references for any practical way to render the litz cable of Haldeman hollow so as to permit its use in the arrangements of Strickland and Miller. Absent some such teaching or at the very least some likelihood of success of the proposed combination, the rejection cannot stand.

In view of these deficiencies, the cited references, taken alone or in combination, cannot support a *prima facie* obviousness rejection of independent claims 1, 7, 9, 13, and 21.

Features omitted from cited references

Dependent claim 4 recites an electrical connector “adapted to *lockingly engage* an electrical connector on *an extension cable* that is electrically coupleable to a power

source.” Applicants submit that neither of the prior references that are used to reject the claims nor any combination thereof discloses an electrical connector adapted to lockingly engage an electrical connector, as recited by claim 4. In addition, none of the cited prior art references or combinations thereof discloses that such an electrical connector engages an electrical connector on an extension cable.

Dependent claim 5 recites a fluid connector “adapted to be fluidically coupled to a jumper hose that is fluidically coupleable to the extension cable.” Moesta, at best teaches a jumper hose. However, as previously stated, the cited prior art references fail to disclose an extension cable, much less one fluidically coupled to a jumper hose, as recited by the claim.

Dependent claim 16 recites “a second fluid connector disposed transverse to the second electrical connector and in fluid communication with the flexible tube.” As stated above, the Examiner combined Miller and Moesta in an attempt to provide a first fluid connector disposed transverse to a first electrical connector. In view of the traversal made above with regard to the combination of Miller and Moesta, Applicants further submit that neither of the prior art references nor any of their combinations disclose a second fluid connector disposed transverse to the second electrical connector and in fluid communication with the flexible tube, as recited by the claim.

For at least these reasons, Applicants submit that the Examiner has failed to establish a *prima facie* case of obviousness with regard to dependent claims 4, 5 and 16. Accordingly, Applicants request the Examiner to withdraw the rejections and allow the claims.

The Examiner is using hindsight reconstruction

Applicants note that the Examiner is combining three, four and, in some instances, five references to obviate the claims. In so doing, it appears that the Examiner is picking and choosing elements from the prior art disclosures to deprecate the claims. In further view of the traversal presented thus far, Applicants contend that the Examiner is using pure hindsight gained from the claims to reject the claims. The Examiner is reminded that such hindsight reconstruction of the claimed invention is impermissible. As stated by the federal court *In re Fine* “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *See In re Fine*, 5 U.S. PQ2d 1596.

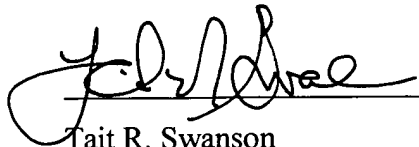
Accordingly, Applicants respectfully request the Examiner to reconsider and put the Application in condition for allowance.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS

The Applicants hereby resubmit a full set of replacement sheets 1 – 11 for all drawings in the present application, each sheet labeled as a “Replacement Sheet.” These replacement sheets do not add any new matter, and are merely provided to ensure that the Examiner has a full set of clean formal drawings without any handwriting as indicated in the Office Action.